is joined to the 3' end of the first region by a non-nucleotide linker. This amendment finds support in the specification at, for example, page 22, lines 16-19.

Claims 38 and 39 are newly added and depend from claims 1 and 11, respectively. New claims 38 and 39 recite that the first region cannot be used to produce a functional double-stranded promoter sequence using a complementary oligonucleotide. This amendment finds support in the specification at, for example, page 13, lines 20-21.

A marked-up version of the amendments to the claims is provided herewith in accordance with the provisions set forth in 37 C.F.R. § 1.121.

Rejection Under 35 U.S.C. § 102

Claims 1, 2, 11 and 12 stand rejected by the Examiner under 35 U.S.C. § 102(b) as being anticipated by Wright *et al.* (*Science* (1997) 276:614-617). Applicants respectfully traverse this rejection for the reasons that follow.

Wright is cited by the Examiner for disclosing a purified decoy probe comprising a first nucleotide base recognition sequence region which binds to an RNA polymerase. This characterization of Wright is not enough to make out a *prima facie* case of anticipation, however, as the noted claims also provide that the claimed decoy probe does not have a terminal 3' OH group available to accept a nucleoside triphosphate in a polymerization reaction. (Applicants' Preliminary Amendment dated May 29, 2001 specified that the decoy probe does not have a 3' end that can participate in a polymerase reaction.) Applicants submit that a *prima facie* case of anticipation has not been made out, as the Examiner has not demonstrated that Wright discloses a molecule having a first nucleotide base recognition sequence which binds to an RNA polymerase and which lacks a terminal 3' OH group available to accept a nucleoside triphosphate in a polymerization reaction. *See* MPEP § 2131 at 2100-69 (8th ed., August 2001) citing *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("A claim is anticipated only if each and every

Received from < 8584108922 > at 6/3/02 4:05:49 PM [Eastern Daylight Time]

element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."). Accordingly, withdrawal of this rejection is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 1-16 stand rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Wright *et al.* (*Science* (1997) 276:614-617) in view of Gold *et al.* (U.S. Patent No. 5,811,533). Applicants respectfully traverse this rejection for the reasons that follow.

Applicants submit that the Examiner cannot rely upon Wright in making out a *prima facie* case of obviousness because the objective of Wright was coupled catalysis and amplification. Any modification of the molecule in Wright which would render a terminal 3' OH group unavailable to accept a nucleoside triphosphate in a polymerization reaction, as presently claimed, would be directly contrary to Wright's stated objective. *See* MPEP § 2143.03 at 2100-126 (8th ed., August 2001) ("To establish *prima facie obviousness* of a claimed invention, all the claim limitation must be taught or considered.") (Emphasis added.) Even so, Applicants submit that the Examiner has also failed to identify where it is that Gold teaches modifying a disclosed ligand so that there is no terminal 3' OH group available to accept a nucleoside triphosphate in a polymerization reaction (or so that a 3' end cannot participate in a polymerase reaction, as previously recited in the claims). Accordingly, withdrawal of this rejection is respectfully requested.

Claims 1-18 stand rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Wright *et al.* (*Science* (1997) 26:614-617) in view of Gold *et al.* (U.S. Patent No. 5,811,533), and further in view of Olson *et al.* (U.S. Patent No. 5,861,273). Applicants respectfully traverse this rejection for the reasons that follow.

Wright and Gold are cited in combination for teaching the decoy probe of claims 1-16 for the reasons set forth in paragraph 4 of the Examiner's Office Action. While conceding that

Received from < 8584108922 > at 6/3/02 4:05:49 PM [Eastern Daylight Time]

neither Wright nor Gold teaches a nucleotide base recognition sequence region having nucleotide base similarity of at least 75% with at least one of SEQ ID Nos. 1, 2, 3, 4, 5 and 6, the Examiner nevertheless contends that the sequence of SEQ ID NO:3 of the presently claimed invention is identical to the sequence of SEQ ID NO:4 of Olson. Applicant submits that any showing of sequence similarity between the sequences of the claimed invention and Olson would be inadequate to overcome the deficiencies noted above in the Wright and Gold references. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 1-16 and 34-35 stand rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Wright *et al.* (*Science* (1997) 26:614-617) in view of Gold *et al.* (U.S. Patent No. 5,811,533), and further in view of Stackebrandt *et al.* (U.S. Patent No. 5,089,386). Applicants respectfully traverse this rejection for the reasons that follow.

Wright and Gold are cited in combination for teaching the decoy probe of claims 1-16 for the reasons set forth in paragraph 4 of the Examiner's Office Action. While acknowledging that Wright in view of Gold do not teach the decoy containing a region of self-complementarity, the Examiner contends that Stackebrandt teaches the decoy probe of the claimed invention having a region of self-complementarity. Applicants first submit that the Examiner has failed to establish that Stackebrandt teaches anything but probes which may exhibit a degree of self-complementarity. Contrary to the Examiner's suggestion, Stackebrandt provides no definition of a probe which meets the requirements of the claimed decoy probes. *See* Stackebrandt at col. 2, lines 16-20. Additionally, the Examiner has quoted Stackebrandt out of context. What Stackebrandt actually teaches is that probes to structured regions may themselves have regions of self-complementarity. Therefore, Stackebrandt concludes that it is important to *minimize* such self-complementarity because "self-complementary probes can render themselves inaccessible for hybridization to their target sequences." *See* Stackebrandt at col. 6, lines 32-51. Thus, Stackebrandt, if anything, provides a teaching away from probes having regions of self-complementarity. *See* MPEP § 2141.02 at 2100-

Received from < 8584108922 > at 6/3/02 4:05:49 PM [Eastern Daylight Time]

120 (8th ed., August 2001) ("A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.") (Emphasis added.)

Additionally, the Examiner has never established what the *motivation* would be for including a region of self-complementarity in the promoter sequence-containing molecules of Wright. *See* MPEP § 2143.01 at 2100-123 (8th ed., August 2001) ("Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.") Accordingly, Applicants submit that Stackebrandt adds nothing to the teachings of Wright and Gold and teaches away from designing probes to include regions of self-complementarity. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicants submit that the subject application is in condition for allowance and Notice to that effect is respectfully requested.

Please charge the excess claims fee due under 37 C.F.R. § 1.16(c), and any other fee which may be due, to Deposit Account No. 07-0835 in the name of Gen-Probe Incorporated.

Received from < 8584108922 > at 6/3/02 4:05:49 PM [Eastern Daylight Time]

REPLY

Serial No. 09/867,193
Atty. Docket No. GP100-03.CN1

Certificate of Transmission

I hereby certify that this correspondence (and any referred to as attached) is being sent by facsimile to 703-872-9306 on the date indicated below to Commissioner for Patents, Washington, D.C. 20231.

Respectfully Submitted,

Date: June 3, 2002 By: _____

Charles B. Cappellari
Registration No. 40,937
Attorney for Applicants

GEN-PROBE INCORPORATED
Patent Department
10210 Genetic Center Drive
San Diego, California 92121
PH: (858) 410-8927
FAX: (858) 410-8928

Received from < 8584108922 > at 6/3/02 4:05:49 PM [Eastern Daylight Time]

MARKED-UP VERSION OF AMENDMENTS

IN THE CLAIMS:

The claims have been amended as follows:

1. (Twice Amended) A purified decoy probe comprising:

a first nucleotide base recognition sequence region, wherein said first region binds to an RNA polymerase; and

an optionally present second nucleotide base recognition sequence region,

provided that if said first region is nucleic acid and said second region is present, then said second region is either directly joined to the 5' end of said first region or is joined to the 3' end or 5' end of said first region by a non-nucleotide linker, wherein said optionally present second region is present if said first region can be used to produce a functional double-stranded promoter sequence using a complementary oligonucleotide,

further provided that if said first region is nucleic acid which can be used to produce said functional double-stranded promoter sequence using said complementary oligonucleotide, then said decoy probe does not have a nucleic acid sequence greater than about 10 nucleotides in length joined directly to the 3' end of said first region and said decoy probe does not have a terminal 3' [end that can participate in a polymerase reaction] OH group available to accept a nucleoside triphosphate in a polymerization reaction.

11. (Twice Amended) A purified decoy probe comprising:

a first nucleotide base recognition sequence region, wherein said first region has at least 35% sequence similarity to an RNA polymerase promoter sequence; and

an optionally present second nucleotide base recognition sequence region,

provided that if said first region is nucleic acid and said second region is present, then said second region is either directly joined to the 5' end of said first region or is joined to the 3' end

Received from < 8584108922 > at 6/3/02 4:05:49 PM [Eastern Daylight Time]

or 5' end of said first region by a non-nucleotide linker, wherein said optionally present second region is present if said first region can be used to produce a functional double-stranded promoter sequence using a complementary oligonucleotide,

further provided that if said first region is nucleic acid which can be used to produce said functional double-stranded promoter sequence using said complementary oligonucleotide, then said decoy probe does not have a nucleic acid sequence greater than about 10 nucleotides in length joined directly to the 3' end of said first region and said decoy probe does not have a terminal 3' [end that can participate in a polymerase reaction] OH group available to accept a nucleoside triphosphate in a polymerization reaction.

Received from < 8584108922 > at 6/3/02 4:05:49 PM [Eastern Daylight Time]